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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,298	12/09/2004	Kentaro Yamauchi	262637US3XPCT	8627
22850	7590	09/06/2007		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER HAMO, PATRICK	
			ART UNIT	PAPER NUMBER
			3746	
			NOTIFICATION DATE	DELIVERY MODE
			09/06/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/516,298	<b>Applicant(s)</b> YAMAUCHI ET AL.	
	<b>Examiner</b> Patrick Hamo	<b>Art Unit</b> 3746	

**– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 June 2007.  
 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-7 is/are rejected.  
 7) ☒ Claim(s) 8-12 is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This action is in response to amendments filed on June 18, 2007.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicants' admission of prior art in view of Noah et al., 5,782,615.

The applicant admits as prior art (p. 1, l. 9 – p. 3, l. 14) an oil pump with an actuating chamber, a suction port, a delivery port, a suction passage for supplying oil to the suction port, a delivery passage to which the oil is delivered from the delivery port, a bypass passage for communicating with the delivery passage and the suction passage, and a rotor for actuating a pump action. Rotation of the rotor causes a pump action which sucks oil in the suction passage from the suction port so as to supply the oil to the delivery passage by way of the delivery port. When a flow amount of the oil is excessive in the delivery passage, a flow control valve sends the excessive oil in the delivery passage to the suction passage as a returning flow of oil by way of the bypass passage, thereby supplying the oil suitably from the delivery passage to a hydraulic apparatus.

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When the excessive oil returns from the delivery passage exhibiting a high pressure to the suction passage exhibiting a low pressure by way of the bypass passage, the oil returns at a considerably high speed.

The applicant does not admit as prior art the following claimed limitations: said corrosion-proof member extends over less than half of the at least one of said suction passage and said bypass passage in a circumferential direction of a center line in a cross section which intersects said center line of one of said suction passage and said bypass passage at right angles and is circumferentially position in the at least one of said suction passage and said bypass passage to face the returning flow of oil, and has one of a V-shape, a U-shape, and a C-shape in said cross section, said corrosion-proof member has a spring force for being urged in an opening direction thereof in said cross section and said corrosion-proof member is fixed by said spring force in at least said one of said suction passage and said bypass passage, said base is formed of aluminum alloy, and said corrosion-proof member is formed of material which is higher than aluminum alloy in average hardness and corrosion resistance, at least a portion being in contact with oil in said corrosion-proof member is mainly formed of ferrous material selected from a group of alloy steel and carbon steel, or ceramic material, said suction passage has a long sideways shape with a long diameter and a short diameter in said cross section, and said corrosion-proof member is disposed in the side of said long diameter of said suction passage, and said corrosion-proof member is set to be flat with an inner wall surface at which said corrosion-proof member is disposed in said suction passage and said bypass passage.

However, Noah teaches a pump assembly with an erosion-proof tubular bypass liner 112 is discontinuous in a circumferential direction through a center line crossing an inlet passage 104 at a right angle and has a C-shape cross section (fig. 7), and in a circumferential direction of a center line crossing the inlet passage at or above clips 204 and 206, the corrosion-proof member extends over less than half of the passage and is position to face the returning flow of oil as is its function to prevent corrosion by the oil. Furthermore, the tubular bypass liner is spring-loaded in to the inlet passage by means of the slot 180 and then fixed therein (Abstract, ll. 16-22), with a base or main section 26 formed of an aluminum casting (col. 2, ll. 13-14), and the erosion-proof liner is made of steel (col. 5, ll. 58-59) which is harder than aluminum, and it is obvious from its use as an erosion-proof liner that it is more corrosion resistant, and the erosion-proof liner is set flat against the inner wall surface of the inlet passage (fig. 3). Noah teaches that the tubular liner helps protect the housing against erosion from the relatively high pressure bypassed fluid and inlet fluid in the pump unit and limiting movement of the liner in response to fluid flows that normally encourage movement (col. 1, ll. 31-37).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the admitted prior art with the tubular bypass liner of Noah in order to limit the movement of the liner in response to fluid flows that tend to move the liner relative to the housing.

In regards to the claimed limitations that said suction passage has a long sideways shape with a long diameter and a short diameter in said cross section, and said corrosion-proof member is disposed in the side of said long diameter of said

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suction passage, this constitutes a change in shape that fails to patentably distinguish over the prior art absent persuasive evidence that the particular configuration is significant. See MPEP §2144.04(4)(b).

### ***Allowable Subject Matter***

Claims 8-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Applicant's arguments filed on June 18, 2007 with respect to claims 1-7 have been fully considered but they are not persuasive.

The applicant argues that because the discontinuity 180 of Noah et al. has a small circumferential extent that therefore independent claim 1 defines over this art with the limitation that "said corrosion-proof member extends over less than half of the at least one of said suction passage and said bypass passage in a circumferential direction of a center line in a cross section which intersects said center line of one of said suction passage and said bypass passage at right angles". However, further up from the discontinuity 180 of Noah, namely above the clips 204 and 206, if a cross-section is to be taken, the liner would extend over significantly less than half of the suction passage. In regards to the claimed limitation that the member "is circumferentially positioned... to face the returning flow of oil", it is obvious that the liner

of Noah, in order to fulfill its function of preventing corrosion by oil, would be positioned to face the oil. Therefore, the rejections of claim 1-7 have been upheld.

Applicant's arguments filed on June 18, 2007, with respect to the rejection of claims 8-12 under 35 U.S.C. §103 have been fully considered and are persuasive. The rejection of claims 8-12 has been withdrawn.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Hamo whose telephone number is 571-272-

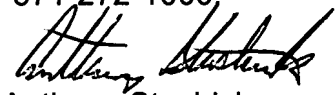
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3492. The examiner can normally be reached on M-F 8:30-5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



PH



Anthony Stashick  
Supervisory Patent Examiner  
Art Unit 3746